

WSHU64.ST25.txt
SEQUENCE LISTING

<110> Neff, Michael M

<120> THE GENE FOR A DOF TRANSCRIPTION FACTOR CAPABLE OF ALTERING THE SIZE AND STATURE OF A PLANT

<130> WSHU 2064.1

<150> US 60/406,657

<151> 2002-08-02

<160> 20

<170> PatentIn version 3.1

<210> 1

<211> 7580

<212> DNA

<213> Arabidopsis thaliana

<400> 1
agctctatta attcaagaga gcagcaaata aagcaaaaac tcaaaaccta agttttctga 60
atatgaaagg ggtagataa tcattctctc aactagttaa aaaaagtaat gataaaatta 120
aaaacacaat ggatcaatta agagacagta gtttatgata tatatggttg ggatcgatta 180
gttgacatca caaagatcaa aataatgacc ggtaattgcc caaataccaa ggcgacaatt 240
catgcgatat tcaaacacct taatgtcatt caaatactat aactaactat cctcaattaa 300
caaagctagc tagatTTTTc tcaagtgagc aacagtctaa ttcttctgaa aaaacttggt 360
ttttccgagt gtaaattatc caatctactt actacaattt gagcattaat ctagttttct 420
ctgcaacttt aaaaccaggt gtacaagtgt caacaccaga tctagcgtaa aacacttaag 480
ctagtactta aatagattat gcctattttt tcgaccatta tatattaaac tttccagcct 540
ttcgtgaaaa aatgcgcatg ttcttggttg aatctaggaa tcttcttcta ctaaagattg 600
gcatgcacgt ggtaacgatt tccattgtat actatctcga ttttttcca ccttaaatat 660

WSHU64.ST25.txt

cttgaaaatt aagatcaa	tatatgaga	catatattgt	atcattgttt	gtaatagcct	720
tatatagtgt gtagatgtga	actatggata	caaaaaacaa	taggaaagaa	aaagctgcag	780
agaagggtgtt gctttacaac	tatgaatatg	ggctcatgag	atgtacacta	cagataagcg	840
aagattcctg ttgcatgaaa	atgtgttact	aataaaaaaa	acacatgcac	atttctataa	900
agacgaattt cttttaaata	ataaatttct	ataacaaata	aagataagtg	ctcctttaaa	960
aacatgcaaa agaatatata	gatttaccgt	atcagatttt	catacaattt	ttatattttt	1020
tgagcttgaa agattaacat	gacaaactgt	atcgtgtgtc	ctcgtctatt	cacccttaga	1080
agaagtgaaa catggaactt	tatgtatttg	catacggcga	gctagcttct	tccctacttg	1140
tccaatagat gaagacatta	tcactcaggt	tcagctactt	cgaagcgcaa	catatcgaca	1200
aaaaatcggt ttagctctat	catctgtctt	ttgaagaaaa	atatcaacat	atcaaataca	1260
tatacacact cccacaaaat	atataaccac	aatatatatt	ggttactacg	aaattccaat	1320
gatattgctc ttgaaacaa	ctaaactgtg	aattacaagc	taaggcaata	tatctattat	1380
attctttctt tgtgtctcaa	cttcatccct	ttctaagtaa	ttcaaattaa	ttggaagttt	1440
tgtcatctaa attgaagttc	ttcttaccgg	atcattttgt	ctcaggttga	tatatacttt	1500
cttagtctga tacgaaaaac	ttataaatat	aatgattaga	gagagacatg	tttgatgtta	1560
tatttttctg gtaaaaaaca	tcttgattat	gaactatata	gttagggata	tgtttgatgt	1620
tgtgtgtcga catagtgagg	tccattaaaa	agaaggctctg	attaaatttt	acgtttggac	1680
cacaaatctt tcttttagaa	atcgcggaact	gggacacctt	cctacaacat	gtccgtcttt	1740
actaatctta cgtaccctc	acattcgtaa	ccataaaatc	atcaaataata	atatagagac	1800
tggtgatcat aattcgaaat	atcttttact	aattcaatgt	tatcggttaag	ttatattagg	1860
ggtataacat caagaatcac	gaaagaatta	aaaacaacct	tgtcgaatca	tgatttgatt	1920
ttttggctta tactttctaa	tttttatatc	ttgtgtgca	aattagcacc	aaaatatata	1980
tattcttctt cttcaacatc	gaattcttta	ttttgttaaa	ggcatttttt	tcttaacaga	2040
ggaattttac atcattctta	gactgaactt	tcgggataaa	aaatctcgcc	atgcaaaggt	2100
aatttatttt ttcatgacaa	aagccacaat	ggcgataatt	ataactataa	tactatgcaa	2160
aacgaaactt tacttggtc	ataccgagga	aaacaaaggt	acactcgatt	gtgacaactc	2220
caccaaagac caccctacta	ccaattcacc	tttatttggt	tctttattca	ctcaaatct	2280
ttttaatttt ttttaattaat	tcaattattc	gcttctctcg	ttgtttttta	accttttaat	2340
taaaaattga aaggaggtgc	ctagggtttc	tctctctgca	tggccactct	cgctcttcac	2400
atcttttttt gggcaccatt	gttaacgtat	gcaaaaaaaa	aaaaaaaaaa	aaaaaaaaact	2460
tacatgctaa gaaaactctc	tttccttgtc	gtttctctca	taaaagaaat	ttattttaac	2520

WSHU64.ST25.txt

ttatTTTTagT	ccaaaatttA	tcgttGctga	tgaaaaatac	aatataggaa	gtgggatcgg	2580
atcggacaag	gagtgaatta	tctaccaact	tagatttcac	tcgtcttttg	attgacaagt	2640
aacatacaca	ataaacacat	atgcataatt	atttccatct	tcaaccaa	gttgtagtga	2700
agtaatttga	tctatgttat	acggacatct	atctactaaa	tttttgaaaa	aaaaaaaaaa	2760
aactatctat	tacatgctcc	aaattattac	ttgcttatgt	aatttatgcg	tatattagag	2820
atgttggtgt	ttttctgaaa	tttgatatat	gttcttttat	ctctgaaata	tgatatgtga	2880
atcatcatag	cattttcagt	ggttacaacc	ttatcgaatc	gacaaaagat	tgaaacaaat	2940
tggaaaaaaa	taaaatagtt	ttactatttt	ctaagcagcg	tgaaatgaat	atcagtataa	3000
tatatgaaac	aaattcgtac	gtgataaata	tgtatacagt	gatacaacca	agaacgatga	3060
cgtatatgat	tgacttgcaa	aaataagcaa	acaaaatacc	tgttcaaatac	gacacttaat	3120
tccaaaaagg	ttagtaataa	gtaagaaggc	ttttatttat	gaaaacaaaa	agaaataaag	3180
agcctaagag	aatgatgaaa	attgaaagag	aaaaaagagc	attgttatag	aaaagaaaaa	3240
aaagagagag	taaagagaat	taagaaacac	aataaattaa	acaaaggaaa	cttcatttct	3300
tctctttatc	ccattcagct	cctcccttct	ctctctctct	ctctctctct	ctctctagat	3360
caattctttc	ttctatgatg	tgattatcca	ccatatctgc	gacctcttac	ctaaaaagga	3420
tacaagtaag	agattcaaag	atggttttct	catctcttcc	agtgaatcag	ttcgattccc	3480
aaaattggca	gcaggtaaaa	atcagtttat	gatatttgct	agatgtttct	gattcgttcc	3540
tttttcctcc	aagctcgatc	aagatttatg	aaaatttgat	gagattttgt	tcgacaaaat	3600
tcctagctat	tgtggacgcg	catatatatt	acttatgaat	attcttagtt	gattaaaccc	3660
tttttttttc	ttgtcttctc	gaatatacga	aaatatataa	agatgatttc	aattttggtc	3720
tttttttcta	cttcaagact	ttttaaaaaa	ttattcttag	ttgataaaaa	ccttttttct	3780
tgtcttctcc	aagggtctat	gtataatgtt	tttcttacag	gattaatttt	ctctttgggt	3840
agatttttac	accgccatgg	aattatcact	tcaaaaataa	aaaagttaa	agttactatg	3900
actttaatct	gagttattta	tccattttct	ttttgcagct	ttgttgaaaa	actataatta	3960
atctgcaatt	cttgtcaaag	tagtcacaat	ttttatctat	tttcttttgt	ctccgaccaa	4020
tgtttcaaac	tcgaatcctt	tcgttaaaag	ttgtttctgc	tttattataa	acctgaaact	4080
aattagtaca	aattatgtta	atatgcagca	agggaaccaa	catcagctag	aatgtgtcac	4140
aactgaccag	aaccctaata	attacttacg	gcagctctca	tcaccaccga	cttctcaggt	4200
tgcagggttcg	agtcaagcta	gagtgaattc	aatgggtggaa	cgtgctcgga	tcgcaaaagt	4260
cccattgcct	gaagcagctc	taaattgccc	tagatgtgac	tcaaccaata	ctaagtctg	4320
ttacttcaat	aactatagcc	ttactcaacc	tcgccatttc	tgcaaaacat	gtcgtcgcta	4380
ttggacacgt	ggcgggttcct	tgaggaatgt	tcctgttgga	ggaggcttta	ggaggaacaa	4440

WSHU64.ST25.txt

gagaagcaaa	tccagatcga	aatctacggt	cgtggtctcg	actgataata	ctactagtac	4500
ttcatcactt	acttctcgcc	caagttactc	aaaccctagc	aagtttcata	gctacggtca	4560
aatcccggag	tttaattcca	acttgcccat	cttgccctct	ctccaaagcc	ttggagatta	4620
caattcaagc	aacactggat	tagatTTTTg	tggaactcaa	ataagcaaca	tgataagtgg	4680
tatgagttct	agtggTggga	tcttggaTgc	atggagaata	cctccatcac	aacaagctca	4740
gcaattccct	ttcttgatca	acactaccgg	attggTgcaa	tcttcaaacg	cgttatatcc	4800
attactagaa	ggtaagggag	gtgttaatca	aggTgattct	caacagaaga	gtagtgatta	4860
ttccaatcag	ctaattgttta	agcccttgat	ggatttttct	tcaggcgggg	ttagcgccac	4920
gcaaacaaga	aatgtgaagg	cggaagagaa	tgatcaggat	cggggtaggg	atggggatgg	4980
agtgaataac	ttatcaagaa	actTTTTggg	taatatcaac	ataaactcag	gcaggaacga	5040
ggaatacaca	tcatggggag	gtaacagTtc	ttggaccggt	ttcacctcca	acaactcaac	5100
aggccatctc	tcatttctaag	tactcagcac	tagctattct	tgatgattct	tttgTtggtt	5160
ggggTgtaca	ttggtgcttg	tcatgcgagt	tattgctgag	gaagatcaaa	ccatgcagct	5220
atatccaaag	gctaattttg	aggctcaaag	gaaaggTatg	gttataaaac	tatctTTTTg	5280
atcttttaaa	agatcttcaa	agtgtgagta	Tgtttattgg	ttggcttctg	gtgatattta	5340
Tgttttatta	gaatttggtc	ttatatattg	gctatatata	gaggTgtggg	Tgatattgtat	5400
gaattcaaga	gttgatgttg	gaaactTTTT	Tgtgtgttca	ttgaataatc	atcgaattct	5460
caatttcttg	gagaccatt	atgagacatt	gagacatcta	tagaacatat	atgtaatgta	5520
tattaaacgt	acttaagTcg	aattttatga	ccaaagtaaa	taaattatgc	cgaatgtaca	5580
Tgctaatatc	gagTttaaac	tattttttcc	aatataacaa	ctattttctc	tttcgtccaa	5640
cttatatact	cttattctga	ttcttatttt	cttcttttta	attccttttt	cctttcccaa	5700
gacacaaaaa	aaaaaaaaata	cagaaacgaa	aaaaagagat	tttaaaaatt	cataaccac	5760
gagaattatg	cacctaaatt	cagactaatc	cccaaattt	cagaaattta	Tgtatttttg	5820
cgatttaata	ttgtgttcac	aatcataatg	gccaactaac	taattgaaaa	gacaatggaa	5880
Tgactgaaac	catgcataat	ctctcaagTc	tcaacctatg	aagaatcatg	taaccaatag	5940
actatcatca	Tgattagtta	atgcatgatc	tataatgtat	tctttgaaca	tagatatgtc	6000
atttatctgg	atataaagat	ggcgTTTTaa	cctactttgc	aatttttggt	atatctttct	6060
tctaatacat	atgatcaata	cacttttggt	tttaaaagaa	attaaaaact	tatttcaaac	6120
atcgatcaca	tttttacttt	Tgtttccata	Ttgactacat	ttataggctc	acacttttgt	6180
ttcggatcta	gatatcacat	caatccactt	gctttgaaga	cgtggTtgga	acgtcttctt	6240
tttcacgat	gttcctcgTg	ggTgggggTc	catctttggg	accactgtcg	gtagaggcat	6300

WSHU64.ST25.txt

```

cttgaacgat agcctttcct ttatcgcaat gatggcatTT gtagaagcca tcttcctttt 6360
ctactgtcct ttcgatgaag tgacagatag ctgggcaatg gaatccgagg aggtttcccg 6420
atattaccct ttgttgaaaa gtctcaatag ccctctgggtc ttctgagact gtatctttga 6480
tattcttgga gtagacgaga gtgtcgtgct ccaccatgtt ggggatctag atatcacatc 6540
aatccacttg ctttgaagac gtggttgga cgtcttcttt ttccacgatg ttcctcgtgg 6600
gtgggggtcc atctttggga cactgtcgg tagaggcatc ttgaacgata gcctttcctt 6660
tatcgcaatg atggcatttg tagaagccat cttccttttc tactgtcctt tcgatgaagt 6720
gacagatagc tgggcaatgg aatccgagga ggtttcccga tattaccctt tgttgaaaag 6780
tctcaatagc cctctgggtc tctgagactg tatctttgat attcttggag tagacgagag 6840
tgtcgtgctc caccatgttg gggatctaga tatcacatca atccacttgc tttgaagacg 6900
tggttggaac gtcttctttt tccacgatgt tcctcgtggg tgggggtcca tctttgggac 6960
cactgtcggg agaggcatct tgaacgatag ctttcccttt atcgcaatga tggcatttgt 7020
agaagccatc ttccttttct actgtccttt cgatgaagtg acagatagct gggcaatgga 7080
atccgaggag gtttcccgat attacccttt gttgaaaagt ctcaatagcc ctctgggtctt 7140
ctgagactgt atctttgata ttcttggagt agacgagagt gtcgtgctcc accatgttgg 7200
ggatctagat atcacatcaa tccacttgct ttgaagacgt ggttggaacg tcttcttttt 7260
ccacgatgtt cctcgtgggt ggggggtccat ctttgggacc actgtcggta gaggcattct 7320
gaacgatagc ctttccctta tcgcaatgat ggcatttcta gaagccatct tccttttcta 7380
ctgtcctttc gatgaagtga cagatagctg ggcaatggaa tccgaggagg tttcccgata 7440
ttaccctttg ttgaaaagtc tcaatagccc tctggtcttc tgagactgta tctttgatat 7500
tcttggagta gacgagagtg tcgtgctcca ccattgttgg gatccactag ttctagagcg 7560
gccgccaccg cgggtggagct 7580

```

<210> 2

<211> 307

<212> PRT

<213> Arabidopsis thaliana

<400> 2

Met Gln Gln Gly Asn Gln His Gln Leu Glu Cys Val Thr Thr Asp Gln
1 5 10 15

Asn Pro Asn Asn Tyr Leu Arg Gln Leu Ser Ser Pro Pro Thr Ser Gln
20 25 30

WSHU64.ST25.txt

Val Ala Gly Ser Ser Gln Ala Arg Val Asn Ser Met Val Glu Arg Ala
 35 40 45
 Arg Ile Ala Lys Val Pro Leu Pro Glu Ala Ala Leu Asn Cys Pro Arg
 50 55 60
 Cys Asp Ser Thr Asn Thr Lys Phe Cys Tyr Phe Asn Asn Tyr Ser Leu
 65 70 75 80
 Thr Gln Pro Arg His Phe Cys Lys Thr Cys Arg Arg Tyr Trp Thr Arg
 85 90 95
 Gly Gly Ser Leu Arg Asn Val Pro Val Gly Gly Gly Phe Arg Arg Asn
 100 105 110
 Lys Arg Ser Lys Ser Arg Ser Lys Ser Thr Val Val Val Ser Thr Asp
 115 120 125
 Asn Thr Thr Ser Thr Ser Ser Leu Thr Ser Arg Pro Ser Tyr Ser Asn
 130 135 140
 Pro Ser Lys Phe His Ser Tyr Gly Gln Ile Pro Glu Phe Asn Ser Asn
 145 150 155 160
 Leu Pro Ile Leu Pro Pro Leu Gln Ser Leu Gly Asp Tyr Asn Ser Ser
 165 170 175
 Asn Thr Gly Leu Asp Phe Gly Gly Thr Gln Ile Ser Asn Met Ile Ser
 180 185 190
 Gly Met Ser Ser Ser Gly Gly Ile Leu Asp Ala Trp Arg Ile Pro Pro
 195 200 205
 Ser Gln Gln Ala Gln Gln Phe Pro Phe Leu Ile Asn Thr Thr Gly Leu
 210 215 220
 Val Gln Ser Ser Asn Ala Leu Tyr Pro Leu Leu Glu Gly Gly Val Ser
 225 230 235 240
 Ala Thr Gln Thr Arg Asn Val Lys Ala Glu Glu Asn Asp Gln Asp Arg
 245 250 255
 Gly Arg Asp Gly Asp Gly Val Asn Asn Leu Ser Arg Asn Phe Leu Gly
 260 265 270
 Asn Ile Asn Ile Asn Ser Gly Arg Asn Glu Glu Tyr Thr Ser Trp Gly
 Page 6

275

280

Gly Asn Ser Ser Trp Thr Gly Phe Thr Ser Asn Asn Ser Thr Gly His
290 295 300

Leu Ser Phe
305

<210> 3

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 3
gctctctcga ggtcgacgg

19

<210> 4

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 4
aattatgccg aatgtacatg c

21

<210> 5

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 5
taatacgact cactataggg

20

<210> 6
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 6
 ccatgatgtg tatccctcg 19

<210> 7
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 7
 gtggtatgag ttctagtgg 19

<210> 8
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 8
 cgcgatccg tgaaggcgga agagaatg 28

<210> 9
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 9

ccatcgatca tacatatcac ccacacctc

29

<210> 10

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 10

cggggtacca tacatatcac ccacacctc

29

<210> 11

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 11

gacctcgagt gaaggcggaa gagaatg

27

<210> 12

<211> 888

<212> DNA

<213> Arabidopsis thaliana

<400> 12

atggtggaac gtgctcggat cgaaaagtc ccattgcctg aagcagctct aaattgccct

60

agatgtgact caaccaatac taagttctgt tacttcaata actatagcct tactcaacct

120

cgccatttct gcaaaacatg tcgtcgctat tggacacgtg gcggttcctt gaggaatggt

180

WSHU64.ST25.txt

cctgttggag gaggttttag gaggaacaag agaagcaa	atccagatcgaa atctacggtc	240
gtggtctcga ctgataatac tactagtact tcatcactta	cttctcgccc aagttactca	300
aaccctagca agtttcatag ctacgggtcaa atcccggagt	ttaattccaa cttgcccac	360
ttgcctcctc tccaaagcct tggagattac aattcaagca	acactggatt agattttggt	420
ggaactcaaa taagcaacat gataagtggg atgagttcta	gtggtgggat cttggatgca	480
tggagaatac ctccatcaca acaagctcag caattccctt	tcttgatcaa cactaccgga	540
ttggtgcaat cttcaaacgc gttatatcca ttactagaag	gtaagggagg tgttaatcaa	600
ggtgattctc aacagaagag tagtgattat tccaatcagc	taatgtttaa gcccttgatg	660
gatttttctt caggcggggt tagcgccacg caaacaagaa	atgtgaaggc ggaagagaat	720
gatcaggatc ggggtaggga tggggatgga gtgaataact	tatcaagaaa ctttttgggt	780
aatatcaaca taaactcagg caggaacgag gaatacacat	catggggagg taacagttct	840
tggaccgggt tcacctccaa caactcaaca ggccatctct	cattctaa	888

<210> 13

<211> 177

<212> DNA

<213> Arabidopsis thaliana

<400> 13		
atgcagcaag ggaaccaaca tcagctagaa tgtgtcacia	ctgaccagaa ccctaataat	60
tacttacggc agctctcatc accaccgact tctcaggttg	caggttcgag tcaagctaga	120
gtgaattcaa tgggtggaacg tgctcggatc gcaaaagtc	cattgcctga agcagct	177

<210> 14

<211> 48

<212> DNA

<213> Arabidopsis thaliana

<400> 14		
atggtggaac gtgctcggat cgcaaaagtc ccattgcctg	aagcagct	48

<210> 15

<211> 684

<212> DNA

<213> Arabidopsis thaliana

<400> 15
aacaagagaa gcaaattccag atcgaaatct acgggtcgtgg tctcgactga taatactact 60
agtacttcat cacttacttc tcgcccaggt tactcaaacc ctagcaagtt tcatagctac 120
gggtcaaattc cggagtttaa ttccaacttg cccatcttgc ctctctcca aagccttgga 180
gattacaatt caagcaacac tggattagat tttggtggaa ctcaaataag caacatgata 240
agtggatatga gttctagtgg tgggatcttg gatgcatgga gaatacctcc atcacaacaa 300
gctcagcaat tccctttctt gatcaacact accggattgg tgcaatcttc aaacgcgtta 360
tatccattac tagaaggtaa gggagggtgtt aatcaagggtg attctcaaca gaagagtagt 420
gattattcca atcagcta atgtttaagccc ttgatggatt tttcttcagg cgggggtagc 480
gccacgcaaa caagaaatgt gaaggcggaa gagaatgatc aggatcgggg tagggatggg 540
gatggagtga ataacttatc aagaaacttt ttgggtaata tcaacataaa ctcaggcagg 600
aacgaggaat acacatcatg gggaggtaac agttcttgga ccggtttcac ctccaacaac 660
tcaacaggcc atctctcatt ctaa 684

<210> 16

<211> 156

<212> DNA

<213> Arabidopsis thaliana

<400> 16
ctaaattgcc ctagatgtga ctcaaccaat actaagttct gttacttcaa taactatagc 60
cttactcaac ctcgccattt ctgcaaaaaca tgctcgtcgt attggacacg tggcggttcc 120
ttgaggaatg ttcctgttgg aggaggcttt aggagg 156

<210> 17

<211> 1235

<212> DNA

<213> Arabidopsis thaliana

<400> 17
caaccaagaa cgatgacgta tatgattgac ttgcaaaaat aagcaaacaa aatacctgtt 60
caaatcgaca cttaattcca aaaagggttag taataagtaa gaaggctttt atttatgaaa 120

WSHU64.ST25.txt

acaaaaagaa ataaagagcc taagagaatg atgaaaattg aaagagaaaa aagagcattg	180
ttatagaaaa gaaaaaaaaag agagagtaaa gagaattaag aaacacaata aattaaacaa	240
aggaaacttc atttcttctc tttatcccat tcagctcctc ccttctctct ctctctctct	300
ctctctctct ctagatcaat tctttcttct atgatgtgat tatccaccat atctgcgacc	360
tcttacctaa aaaggataca agtaagagat tcaaagatgg ttttctcatc tcttcagtg	420
aatcagttcg attcccaaaa ttggcagcag gtaaaaatca gtttatgata tttgctagat	480
gtttctgatt cgttcctttt tcctccaagc tcgatcaaga tttatgaaaa tttgatgaga	540
ttttgttcga caaaattcct agctattgtg gacgcgcata tatattactt atgaatattc	600
ttagttgatt aaaccctttt tttttcttgt cttctcgaat atacgaaaat atataaagat	660
gatttcaatt ttgggtctttt tttctacttc aagacttttt aaaaaattat tcttagttga	720
taaaaacctt ttttcttgtc ttctccaagg gcttatgtat aatgtttttc ttacaggatt	780
aattttctct ttgggttagat ttttacaccg ccatggaatt atcacttcaa aaataaaaaa	840
gtttaaagtt actatgactt taatctgagt tatttatcca ttttcttttt gcagctttgt	900
tgaaaaacta taattaatct gcaattcttg tcaaagtagt cacaattttt atctattttc	960
ttttgtctcc gaccaatgtt tcaaactcga atcctttcgt taaaagttgt ttctgcttta	1020
ttataaacct gaaactaatt agtacaaatt atgttaatat gcagcaaggg aaccaacatc	1080
agctagaatg tgtcacaact gaccagaacc ctaataatta cttacggcag ctctcatcac	1140
caccgacttc tcaggttgca gggtcgagtc aagctagagt gaattcaatg gtggaacgtg	1200
ctcggatcgc aaaagtccca ttgcctgaag cagct	1235

<210> 18

<211> 1746

<212> DNA

<213> Arabidopsis thaliana

<400> 18

aacaagagaa gcaaattccag atcgaaatct acggtcgtgg tctcgactga taatactact	60
agtacttcat cacttacttc tcgccaagt tactcaaacc ctagcaagtt tcatagctac	120
gggtcaaatcc cggagtttaa ttccaacttg cccatcttgc ctctctcca aagccttgga	180
gattacaatt caagcaacac tggattagat tttggtggaa ctcaaataag caacatgata	240
agtggatga gttctagtgg tgggatcttg gatgcatgga gaatacctcc atcacaacaa	300
gctcagcaat tccctttctt gatcaacact accggattgg tgcaatcttc aaacgcgtta	360

WSHU64.ST25.txt

tatccattac tagaaggtaa gggagggtgtt aatcaagggtg attctcaaca gaagagtagt	420
gattattcca atcagctaatt gtttaagccc ttgatggatt tttcttcagg cgggggttagc	480
gccacgcaaa caagaaatgt gaaggcggaa gagaatgatac aggatcgggg tagggatggg	540
gatggagtga ataacttatc aagaaacttt ttgggtaata tcaacataaa ctcaggcagg	600
aacgaggaat acacatcatg gggaggtaac agttcttgga ccggtttcac ctccaacaac	660
tcaacaggcc atctctcatt ctaataagta ctcagcacta gctattcttg atgattcttt	720
tgttggttgg ggtgtacatt ggtgcttgtc atgagagtta ttgctgagga agatcaaacc	780
atgcagctat atccaaaggc taattttgag gctcaaagga aaggatatggt tataaaaacta	840
tctttttgat cttttaaaag atcttcaaag tgtgagtagt tttattgggt ggcttctggt	900
gatatttatg ttttattaga atttggtctt atatattggc tatatataga ggtgtgggtg	960
atatgtatga attcaagagt tgatgttga aacttttttg tgtgttcatt gaataatcat	1020
cgaattctca atttcttga gaccattat gagacattga gacatctata gaacatatat	1080
gtaatgtata ttaaactgtac ttaagtcgaa ttttatgacc aaagtaaata aattatgccg	1140
aatgtacatg ctaatatcga gtttaaaacta ttttttccaa tataacaact attttctctt	1200
tcgtccaact tatatactct tattctgatt cttattttct tctttttaat tcctttttcc	1260
tttccaaga cacaaaaaaaa aaaaaataca gaaacgaaaa aaagagattt taaaaattca	1320
taaccacga gaattatgca cctaaattca gactaatccc ccaaatttca gaaatttatg	1380
tatttttgcg atttaatat gtgttcacaa tcataatggc caactaacta attgaaaaga	1440
caatggaatg actgaaacca tgcataatct ctcaagtctc aacctatgaa gaatcatgta	1500
accaatagac tatcatcatg attagttaat gcatgatcta taatgtattc tttgaacata	1560
gatatgtcat ttatctggat ataaagatgg cgttttaacc tactttgcaa tttttgttat	1620
atctttcttc taatacatat gatcaatata cttttgtttt taaaagaaat taaaaactta	1680
tttcaaacat cgatcacatt ttacttttg tttccatatt gactacatt ataggctcac	1740
actttt	1746

<210> 19

<211> 1058

<212> DNA

<213> Arabidopsis thaliana

<400> 19

caaccaagaa cgatgacgta tatgattgac ttgcaaaaat aagcaaaca aatacctgtt	60
caaatcgaca cttaattcca aaaagggttag taataagtaa gaaggctttt atttatgaaa	120

WSHU64.ST25.txt

acaaaaagaa ataaagagcc taagagaatg atgaaaattg aaagagaaaa aagagcattg	180
ttatagaaaa gaaaaaaaag agagagtaaa gagaattaag aaacacaata aattaaacaa	240
aggaaacttc atttcttctc tttatcccat tcagctcctc ccttctctct ctctctctct	300
ctctctctct ctagatcaat tctttcttct atgatgtgat tatccaccat atctgcgacc	360
tcttacctaa aaaggatata agtaagagat tcaaagatgg ttttctcatc tcttcagtg	420
aatcagttcg attcccaaaa ttggcagcag gtaaaaatca gtttatgata ttgctagat	480
gtttctgatt cgttcctttt tcttccaagc tcgatcaaga tttatgaaaa ttgatgaga	540
ttttgttcga caaaattcct agctattgtg gacgcgcata tatattactt atgaatattc	600
ttagttgatt aaaccctttt ttttcttgtt cttctcgaat atacgaaaat atataaagat	660
gatttcaatt ttggtctttt tttctacttc aagacttttt aaaaaattat tcttagttga	720
taaaaacctt ttttcttgtc ttctccaagg gcttatgtat aatgtttttt ttacaggatt	780
aattttctct ttggttagat ttttacaccg ccatggaatt atcacttcaa aaataaaaaa	840
gtttaaagt actatgactt taatctgagt tatttatcca ttttcttttt gcagctttgt	900
tgaaaaacta taattaatct gcaattcttg tcaaagtagt cacaattttt atctattttc	960
ttttgtctcc gaccaatgtt tcaaactcga atcctttcgt taaaagttgt ttctgcttta	1020
ttataaacct gaaactaatt agtacaaatt atgttaat	1058

<210> 20

<211> 1062

<212> DNA

<213> Arabidopsis thaliana

<400> 20

taagtactca gcactagcta ttcttgatga ttcttttggt gggtgggggtg tacattgggtg	60
cttgtcatgc gagttattgc tgaggaagat caaaccatgc agctatatcc aaaggctaata	120
tttgaggctc aaaggaaagg tatgggtata aaactatctt ttgatcttt taaaagatct	180
tcaaagtgtg agtatgttta ttggttggtt tctggtgata tttatgtttt attagaattt	240
ggtcttatat attggctata tatagagggtg tgggtgatat gtatgaattc aagagttgat	300
gttggaact tttttgtgtg ttcatgaaat aatcatcgaa ttctcaattt cttggagacc	360
cattatgaga cattgagaca tctatagaac atatatgtaa tgtatattaa acgtacttaa	420
gtcgaatttt atgaccaaag taaataaatt atgccgaatg tacatgctaa tatcgagttt	480
aaactatttt ttccaatata acaactattt tctctttcgt ccaacttata tactcttatt	540

WSHU64.ST25.txt

ctgattctta ttttcttctt ttttaattcct ttttcctttc ccaagacaca aaaaaaaaaa	600
aatacagaaa cgaaaaaaaaag agatttttaa aattcataac ccacgagaat tatgcaccta	660
aattcagact aatcccccaa atttcagaaa tttatgtatt tttgcgattt aatattgtgt	720
tcacaatcat aatggccaac taactaattg aaaagacaat ggaatgactg aaaccatgca	780
taatctctca agtctcaacc tatgaagaat catgtaacca atagactatc atcatgatta	840
gttaatgcat gatctataat gtattctttg aacatagata tgtcatttat ctggatataa	900
agatggcggt ttaacctact ttgcaatfff tgttatatct ttcttcta acatattgatc	960
aatacacttt tgttttttaa agaaattaaa aacttatffc aaacatcgat cacattttta	1020
cttttgtttc catattgact acatttatag gctcacactt tt	1062